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Assistant Commissioner for Patents

Application No. 09/983,043

- REMARKS/ARGUMENTS -

Claims 1 to 29 remain in the application.

At point 9 of the aforementioned Office Action, the Examiner states that Applicant's arguments of August 26, 2002 have been considered but are moot in view of the newly modified ground(s) of rejection.

However, at point 2 of the Office Action the Examiner applied GB 493,635 exactly in the same way she had done in the first Office Action to justify her rejection of independent claim 1, under 35 U.S.C. 102(b). The Examiner is respectfully invited to clearly point out the relevant passages in GB 493,635 which teach a joist in which the lower¹⁹ and upper flat end portions of each tension web are respectively pressed against the lower chord and the upper chord by a corresponding lower flat end portion of an adjacent compression web and a corresponding upper flat end portion of another adjacent compression web. From Fig. 1, it is clear that the vertical stay 13 is not connected at its upper flat end to another adjacent one of the inclined stays 12. The upper end of the vertical stay 13 is solely connected to the upper chord 10. This breaks the chain of load transmission in the stays 12 and 13. This arrangement has a completely different structural behaviour from the arrangement claimed in independent claim 1, wherein the compression webs are connected at a first end thereof to an adjacent tension web and at an opposed end thereof to another adjacent tension web. It is respectfully submitted that independent claim 1 clearly sets forth that the lower and upper flat end portions of each of the tension webs are respectively pressed against the lower chord and the upper chord by a corresponding lower flat end portion of an adjacent compression web and a corresponding upper flat end portion of another adjacent compression web, respectively. Heretofore, the Examiner has made no mention of these limitations of claim 1, nor has she provided any evidence of the find of these limitations in GB 493,635.

In view of the foregoing, independent claim 1 is believed clearly patentable over GB 493,635. The Examiner is courteously invited to refer to Applicants' previous

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amendment for additional information on the impact of the structural differences between the claimed invention and the joist disclosed in GB 493,635.

In summary, in GB 493,635, each vertical stay 13 is connected at one end solely to an associated chord and, consequently, the ability of the vertical stay 13 to press the inclined stays 12 is almost non-existent. *not a vertical pole, but rather a "vertical pole" structure*

Regarding the rejection of claims 1 to 5, and 7 to 9 under 35 U.S.C. 102(b) as being anticipated by GB 888,798, it is respectfully submitted that this reference is directed to a vertical pole for supporting overhead transmission lines, the pole comprising two vertical legs 1, each leg 1 being composed of two angles 2 connected at spaced-apart locations along their length by horizontal cross members 5, the two vertical legs 1 being connected by braces 9 extending between the cross members 5. Although Fig. 1 might lead one to believe that the structure disclosed in GB 888,798 is similar to the one presently claimed, a closer *intended to be a closer* examination of the other drawings and the accompanying text permits one to readily conclude that it significantly differs from the proposed invention. Indeed, GB 888,798 is directed to a *vertical pole structure* and is not at all concerned with joists, which have very different design considerations. In view of the foregoing, the rejection under 102(b) is believed inappropriate. GB 888,798 lacks any bottom and upper chords; it is a vertical structure that is intended to support longitudinal loads. A man skilled in the art would never design a joist on the basis of a pole design, since these two types of structures are intended to support very different loads. Furthermore, there is nothing in GB 888,798 that could lead one to conclude that the braces 9, which are in tension, are pressed at each end thereof against the plates 5 by the pair of adjacent compression braces, as recited in claim 1. If the Examiner is convinced of the contrary, she is respectfully invited to clearly set forth the relevant passages in GB 888,798 which expressly state that the opposed end portions of each tension web is respectively pressed against the first and second chords by a corresponding end portion of an adjacent compression web and a corresponding second end portion of another adjacent compression

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web. Such a conclusion cannot be drawn solely from Fig. 5, since this figure only shows one nodal connection.

Dependent claim 5 is also clearly patentable on its own over GB 888,798 as reciting that the intermediate section of each compression web extends between the proximal end of the flat end portion of the edges and tension web and the corresponding connecting bolts, thereby preventing transmission of tensile forces to the bolts. This is clearly not the case in GB 888,798 (see Fig. 5). *It is not a full case - here claim 1 does not require any*

Claims 7 to 20, 22, 23, 26 and 27 stand rejected under 35 U.S.C. 102(b) as being anticipated by GB 493,635. *Dependent no argument*

As mentioned in the previous amendment, independent claim 17 is believed patentable over GB 493,635, as reciting that the chords are advanced in a substantially continuous manner to a die punch station where holes are defined in the chords according to a predetermined pattern. This is not suggested in any way in GB 493,635. GB 493,635 does not address the problem of finding a method that makes a continuous production of joists possible. *Do as 103 because does not state*

Claim 12 stands rejected under 35 U.S.C. 103(a) as being obvious over GB 493,635, in view of United States Patent No. 5,003,748. *493,635 does not state*

It is respectfully submitted that the washers 20 and 21 disclosed in U.S. Patent No. 5,003,748 are of conventional construction and they do not include any eccentric portion configured to bear against a corresponding intermediate section of one of the brace or web member 12, as defined in claim 10, on which claim 12 depends. Therefore, claim 12 is believed patentable, at least in view of its dependency on claim 10. *Do as 103 because does not state*

Claim 13 stands rejected under 35 U.S.C. 103(a) as being obvious over United States Patent No. 4,621,475.

Claim 13 is patentable over U.S. Patent No. 4,621,475 as reciting that registering holes are defined at the ends of adjacent compression and tension webs for receiving a bolt. The tension and compression webs are directly connected together and to

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the chords and, thus, not solely via the chords as thought by McClain. The Examiner is respectfully invited to clearly indicate any passages in U.S. Patent No. 4,621,475 which teach or suggest directly connecting the tension and the compression webs together and to the chords, as recited in claim 13. According to Applicants' understanding of U.S. Patent No. 4,621,475, McClain solely teaches individually securing the webs to the chords. Applicants' present invention is advantageous over McClain in that, by commonly attaching tension and compression webs to the chords, it becomes possible to center respective neutral axes of the webs and the chords such that they almost perfectly intersect in a single point. This practically eliminates end member moments at the connection which, in the case of thin plate cold form structure elements, considerably contributes to the reduction of their buckling strength.

The remaining dependent claims are patentable, at least in view of the reasons set forth above with respect to independent claims 1, 13 and 17.

In view of the above remarks, this application is believed to be in condition for allowance and, accordingly, a notice to this effect is earnestly solicited.

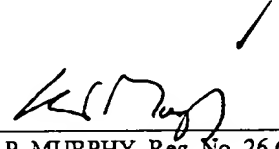
Respectfully submitted,

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By:

February 6, 2003

Date


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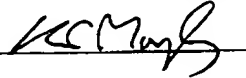
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